

Centers for Disease Control and Prevention (CDC)

CDC Smallpox Home



Normal Reactions: Revaccination



The nature of the response to revaccination depends on the degree of residual immunity following previous vaccination.

One of the following responses will occur:

Response	Description
Typical primary reaction	Clear cut pustule 6-8 days after vaccination
Major reaction	Area of definite induration or congestion surrounding a central lesion that may be a scab or ulcer 6-8 days after vaccination. The evolution of the lesion is more rapid than following a primary reaction.
Equivocal	Any other reaction or response

"Allergic" reaction

including:

reaction

Erythema and a small, evanescent papule present within several days that resolves quickly. These are "sensitivity" reactions that can be evoked with vaccine virus that is no longer viable. Revaccination is indicated.

No reaction

In some individuals, no take is seen after revaccination, even at long intervals after a primary vaccination. Usually this is due to poor technique, low potency vaccine, or inactivation of the virus at the skin site (e.g. if alcohol is used to prepare the site). Revaccination is indicated using vaccine of assured potency.

In general, the shorter the interval between primary vaccination and revaccination, the more likely it is that there will be no take or a major reaction.



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Among those for whom 25 years or more has elapsed since last vaccination, essentially all should experience a "major reaction".

If a patient has never had a successful take, the patient should be informed that he/she is almost certainly **not** immune.